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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Moss *et al.*

Application No. 10/517,565

Filed: December 7, 2004

Confirmation No. Not yet assigned

For: TRYPTOPHAN AS A FUNCTIONAL  
REPLACEMENT FOR ADP-RIBOSE-  
ARGININE IN RECOMBINANT  
PROTEINS

Examiner: Not yet assigned

Art Unit: Not yet assigned

Attorney Reference No. 4239-64830-06

CERTIFICATE OF MAILING

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Agent  
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Date Mailed January 4, 2005

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PURSUANT TO 37 C.F.R. § 1.97(b)(3)**

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Listed on the accompanying form PTO-1449 and enclosed herewith are several English-language and/or non-English-language documents. Applicants respectfully request that these documents be listed as references cited on the issued patent.

Applicants filed this Information Disclosure Statement ("IDS") before the mailing date of a first Office action on the merits. As a result, no fee should be required to file this IDS. However, if the Patent Office determines that a fee is required for Applicants to file this IDS, please charge any such fees, or credit overpayment, to Deposit Account No. 02-4550. A duplicate copy of the transmittal letter for this IDS is enclosed.

The filing of this IDS shall not be construed to be an admission that the information cited in the statement is, or is considered to be, prior art or otherwise material to patentability as defined in 37 C.F.R. §1.56.

Respectfully submitted,

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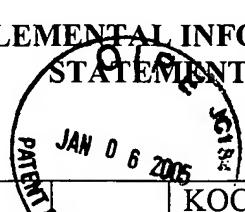
**SUPPLEMENTAL INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

		Attorney Docket Number Application Number Filing Date First Named Inventor Art Unit Examiner Name	4239-64830-06 10/517,565 December 7, 2004 Moss Not yet assigned Not yet assigned
Examiner's Initials*	Cite No. (optional)	<b>OTHER DOCUMENTS</b>	
		BALDUCCI <i>et al.</i> , "Selective Expression of RT6 Superfamily in Human Bronchial Epithelial Cells," <i>Am. J. Respir. Cell Mol. Biol.</i> 21:337-346, 1999	
		BORTEL <i>et al.</i> , "Levels of Art2+ cells but not soluble Art2 protein correlate with expression of autoimmune diabetes in the BB rat," <i>Autoimmunity</i> 33(3):199-211, 2001, abstract only	
		BORTELL <i>et al.</i> , "Nicotinamide adenine dinucleotide (NAD) and its metabolites inhibit T lymphocyte proliferation: role of cell surface NAD glycohydrolase and pyrophosphatase activities," <i>J. Immunol.</i> 167(4):2049-2059, 2001, abstract only	
		BOURGEOIS <i>et al.</i> , "Identification of Regulatory Domains in ADP-ribosyltransferase-1 That Determine Transferase and NAD Glycohydrolase Activities," 278(29):26351-26355, 2003	
		BREDEHORST <i>et al.</i> , "Using secondary structure predictions and site-directed mutagenesis to identify and probe the role of potential active site motifs in the RT6 mono(ADP-ribosyl)transferase," <i>Adv Exp Med Biol</i> 419:185-189, 1997, abstract only	
		DOMENIGHINI <i>et al.</i> , "Three conserved consensus sequences identify the NAD-binding site of ADP-ribosylating enzymes, expressed by eukaryotes, bacteria and T-even bacteriophages," <i>Mol. Microbiol.</i> 21(4):667-674, 1996, abstract only	
		GREINER <i>et al.</i> , "Absence of the RT-6 T cell subset in diabetes-prone BB/W rats, <i>J. Immunol.</i> 136(1):148-151, 1986, abstract only	
		HAAG <i>et al.</i> , "Premature stop codons inactivate the RT6 genes of the human and chimpanzee species," <i>J. Mol. Biol.</i> 243(3):537-546, 1994, abstract only	
		HAN <i>et al.</i> , "Regulation of NAD+ glycohydrolase activity by NAD+ -dependent auto-ADP-ribosylation," <i>Biochem. J.</i> 318:903-908, 1996	
		HARA <i>et al.</i> , "Glutamic Acid 207 in Rodent T-cell RT6 Antigens Is Essential for Arginine-specific ADP-ribosylation," <i>J. Biol. Chem.</i> 271(47):29552-29555, 1996	
		HARA <i>et al.</i> , "Mouse Rt6.1 is a thiol-dependent arginine-specific ADP-ribosyltransferase," <i>Eur. J. Biochem.</i> 259:289-294, 1999	
		KARSTEN <i>et al.</i> , "Expression and comparative analysis of recombinant rat and mouse RT6 T cell mono(ADP-ribosyl)transferase in <i>E. coli</i> ," <i>Adv. Exp. Med. Biol.</i> 419:175-180, 1997, abstract only	
		KOCH <i>et al.</i> , "The rat T-cell differentiation marker RT6.1 is more polymorphic than its alloantigenic counterpart RT6.2," <i>Immunology</i> 65(2):259-265, 1988, abstract only	

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\* Examiner: Initial if reference considered, whether or not in conformance with MPEP 609. Draw line through cite if not in conformance and not considered. Include copy of this form with next communication to applicant.

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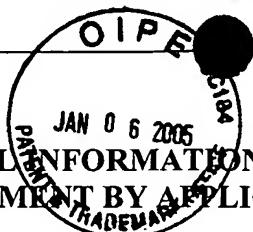
Attorney Docket Number	4239-64830-06
Application Number	10/517,565
Filing Date	December 7, 2004
First Named Inventor	Moss
Art Unit	Not yet assigned
Examiner Name	Not yet assigned

KOCH-NOLTE <i>et al.</i> , "Mouse T Cell Membrane Proteins Rt6-1 and Rt6-2 Are Arginine/Protein Mono(ADPribosyl)transferases and Share Secondary Structure Motifs with ADP-ribosylating Bacterial Toxins," <i>J. Biol. Chem.</i> 271(13):7686-7693, 1996
LESMA <i>et al.</i> , "Characterization of High Density Lipoprotein-Bound and Soluble RT6 Released Following Administration of Anti-RT6.1 Monoclonal Antibody," <i>J. Immunol.</i> 161:1212-1219, 1998
MAEHAMA <i>et al.</i> , "NAD <sup>+</sup> -dependent ADP-ribosylation of T Lymphocyte Alloantigen RT6.1 Reversibly Proceeding in Intact Rat Lymphocytes," <i>J. Biol. Chem.</i> 270(39):22747-22751, 1995
MAEHAMA <i>et al.</i> , "Increase in ADP-ribosyltransferase activity of rat T lymphocyte alloantigen RT6.1 by a single amino acid mutation," <i>FEBS Lett</i> 388(2-3):189-191, 1996, abstract only
MAEHAMA <i>et al.</i> , "Molecular characterization of rat T lymphocyte alloantigen RT6.1 as an ADP-ribosyltransferase," <i>Adv Exp Med Biol</i> 419:181-183, 1997, abstract only
MOJCIK <i>et al.</i> , "Characterization of RT6-bearing rat lymphocytes. II. Developmental relationships of RT6- and RT6+ T cells," <i>Dev Immunol.</i> 1(3):191-201, 1991, abstract only
MOSS <i>et al.</i> , "ADP-ribosylarginine hydrolases and ADP-ribosyltransferases. Partners in ADP-ribosylation cycles," <i>Adv. Exp. Med. Biol.</i> 419:25-33, 1997, abstract only
MOSS <i>et al.</i> , "Characterization of Mouse Rt6.1 NAD:Arginine ADP-ribosyltransferase," <i>J. Biol. Chem.</i> 272(7):4342-4346, 1997
MOSS <i>et al.</i> , "Characterization of NAD:arginine ADP-ribosyltransferases," <i>Mol Cell Biochem</i> 193(1-2):109-113, 1999, abstract only
NEMOTO <i>et al.</i> , "Cell surface ADP-ribosyltransferase regulates lymphocyte function-associated molecule-1 (LFA-1) function in T cells," <i>J. Immunol.</i> 157(8):3341-3349, 1996, abstract only
OKAZAKI <i>et al.</i> , "Glycosylphosphatidylinositol-anchored and Secretory Isoforms of Mono-ADP-ribosyltransferases," <i>J. Biol. Chem.</i> 273(37):23617-23620, 1998
PAONE <i>et al.</i> , "ADP ribosylation of human neutrophil peptide-1 regulates its biological properties," <i>PNAS</i> 99(12):8231-8235, 2002
RIGBY <i>et al.</i> , "Rat RT6.2 and mouse Rt6 locus 1 are NAD+: arginine ADP ribosyltransferases with auto-DP ribosylation activity," <i>J Immunol</i> 156(11):4259-4265, 1996, abstract only
STEVENS <i>et al.</i> , "Regulatory Role of Arginine 204 in the Catalytic Activity of Rat Alloantigens ART2a and ART2b," <i>J. Biol. Chem.</i> 278(22):19591-19596, 2003

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First Named Inventor	Moss
Art Unit	Not yet assigned
Examiner Name	Not yet assigned

	TAKADA <i>et al.</i> , "Expression of NAD Glycohydrolase Activity by Rat Mammary Adenocarcinoma Cells Transformed with Rat T Cell Alloantigen RT6.2," <i>J. Biol. Chem.</i> 269(13):9420-9423, 1994
	THIELE <i>et al.</i> , "Biochemical characterization of the T-cell alloantigen RT-6.2," <i>Immunology</i> 59(2):195-201, 1986, abstract only
	WAITE <i>et al.</i> , "The RT6 rat lymphocyte alloantigen circulates in soluble form," <i>Cell Immunol.</i> 152(1):82-95, 1993, abstract only
	WENG <i>et al.</i> , "Modification of the ADP-ribosyltransferase and NAD Glycohydrolase Activities of a Mammalian Transferase (ADP-ribosyltransferase 5) by Auto-ADP-ribosylation," <i>J. Biol. Chem.</i> 274(45):31797-31803, 1999
	YAMADA <i>et al.</i> , "Automodification of arginine-specific ADP-ribosyltransferase purified from chicken peripheral heterophils and alteration of the transferase activity," <i>Arch Biochem Biophys</i> 308(1):31-36, 1994, abstract only
	ZOLKIEWSKA <i>et al.</i> , "Molecular characterization of NAD:arginine ADP-ribosyltransferase from rabbit skeletal muscle," <i>Proc. Natl. Acad. Sci. USA</i> 89:11352-11356, 1992
	ZOLKIEWSKA <i>et al.</i> , "Integrin $\alpha$ 7 as Substrate for a Glycosylphosphatidylinositol-anchored ADP-ribosyltransferase on the Surface of Skeletal Muscle Cells," <i>J. Biol. Chem.</i> 268(34):25273-25276, 1993
	GenBank Accession No. NP_001916, 26 Oct 2004
	GenBank Accession No. NP_001917, 26 Oct 2004
	GenBank Accession No. NP_066290, 26 Oct 2004
	GenBank Accession No. P11479, 15 Sep 2003

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